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LEADING ARTICLES

HEMORRHOIDS.*

W. H. STAUFFER, M. D.

ST. LOUIS.

BEFORE the history of medicine began, a knowledge of hemorrhoids existed. In Egypt there were "pile doctors" before Joseph was sold into bondage. The Lord will smite thee with the botch of Egypt and with emerods, is the threat of Moses against an impatient and a rebellious people.

Hemorrhoids, or piles, are tumors or swellings produced by pathological changes in the veins supplied to the rectum or anus. Associated with this, there is often an infiltration with inflammatory products of the underlying tissue, and also hypertrophy of the anal skin.

Hemorrhoids have been variously classified, according to location or pathological condition predominating in the case under consideration. I prefer the anatomical classification adopted by most authors.

1. External when situated at the anal margin and quite outside the rectum. 2. Internal when entirely inside the rectum, and originating from the bowel proper. 3. Interno-external when there is both an external and internal pile, and the intervening lining membrane is prolapsed and made prominent by infiltration of the underlying connective tissue. This third variety is always treated in the same way as internal piles.

The distinction between an external and an internal hemorrhoid is not a purely arbitrary one; the one being below and the other above the external sphincter. A different set of blood vessels is implicated in each case. An external hemorrhoid is a varicosity of an external hemorrhoidal vein, and is therefore, an affection of the general venous circulation. An internal hemorrhoid is a varicosity of the middle or internal hemorrhoidal veins, which are parts of the visceral venous system. A glance at the venous anatomy of the rectum and anus will show the arrangement of these two sets of veins, and will also explain how, from the free anastomosis which exists between them, it is improbable that one should be affected without influencing the other to a greater or less extent.

Causes.—The initial cause is the varicose condition of the veins; consequently piles may, and occasionally do, occur in quite small children, whose veins in this region are congenitally varicose. Habits and occupation are the main cause of hemorrhoids in the adult. Excessive eating and drinking associated with insufficient exercise and constipation, account for a large number of cases of piles. It is not unusual on the other hand, to find thin, feeble people, whose muscles are generally relaxed, suffering from bad piles; which frequently prolapse. Constipation and excessive use of purgatives are both factors in the production of piles. The upright position of man and the absence of valves in the superior mesenteric vein, are also predisposing causes of a mechanical character which must not be forgotten. Men are more frequently treated for piles than women, and yet women with fibroids, or displaced uteri, pelvic tumors and pregnancy, must often be afflicted with hemorrhoids.

Many other direct and indirect possible causes have been suggested by various authors, but it is not necessary to discuss them at this time. The main causes are those given above, but there are many factors which aggravate a condition of piles already existing.

Diagnosis.—The importance of a proper diagnosis can hardly be overestimated. The general practitioner as well as the specialist,

*Read at the Clinton County (Ill.) Medical Association, May 7, 1907.

must be on guard and never presume to treat a patient without a thorough examination, and if possible, a definite diagnosis. I believe the main importance in connection with medicine or surgery, is a correct diagnosis of the disease. Indeed, I believe, that if the practitioner of medicine has correctly diagnosticated the affection, he is very apt to be giving the right medicine. Without exception this will require an examination of the patient. It is strange, but it is true, that a woman will readily submit to a uterine examination, who would strenuously oppose a rectal one; and I have found many men who would suffer the inconvenience at least, of rectal trouble for years, before they would agree to be examined for it.

Be this as it may, my advice would be, to refuse to treat an affection of the rectum unless the patient consents to your decision. Less than this would do the patient no good, and would do you harm. A rectal case under your observation and treatment, that is neither benefited nor cured, is a walking advertisement against you. If you have done your duty according to your own opinion, you at least have the satisfaction of being on good terms with yourself.

The average patient who enters the office of the general practitioner, makes his own diagnosis of piles, and is too often dismissed with an astringent ointment. I am not speaking of the various methods employed in making a diagnosis, but of the deplorable fact that no examination is made at all. The same man would never presume to treat any other part of our anatomy without first making a careful examination.

In taking the history of a case it is generally better to follow a definite form sufficiently comprehensive, so you will not omit any important factors or complications. Expose your patient to a good light and inspect the parts carefully.

There are but few instruments needed, and the examination should not be painful—factors which are always dreaded by most people. Unless the rectum has been emptied, an enema should be administered, and if the patient is suffering from internal hemorrhoids the effect of the warm water, and the bearing down at stool will aid us very much, and often we can make a definite diagnosis without the aid of any instrument.

We next make a digital examination, after protecting our finger or hand properly. In examining a woman the finger should be passed into the vagina, and with a little patience the lower rectum can be everted, so that at least one and often two inches of gut can be inspected.

A rubber dilator devised by Dr. Hirschman, of Detroit, for the treatment of constipation, has been of great value to me in bringing the parts into view; both for the purpose of diagnosis and as a means for dilating the sphincter, preparatory to operative procedure.

Having completed our examination we should give our patient a definite opinion. With the exception of malignancy I know of no part of the body that responds more readily to proper treatment; and if you secure the patient's confidence at this time, you will generally have smooth sailing. Time will not permit me to discuss the symptomatology and pathology of hemorrhoids, however inviting the field, as I desire to discuss the treatment more in detail.

Treatment.—The treatment naturally resolves itself into palliative and operative, depending upon the pathological condition existing, and the circumstances and wishes of the patient. Resort to tentative or palliative measures in conditions which may be radically cured by operations, little if at all dangerous, is not considered conservative surgery today. There are many patients, however, in whom radical measures are out of the question, on account of complicating circumstances or diseases. Physical and nervous conditions, business and social arrangements, and sometimes the absolute lack of moral courage, frequently render it impossible or inadvisable to operate for hemorrhoids.

Some hold that the palliation of hemorrhoids is unscientific, and only done for sordid motives; that radical removal is the only method of treatment. Aside from the fact that operation is often contraindicated, the patient himself has some right to choose whether he will be operated on, or treated by palliative means for conditions in which life is not endangered. It is true that hemorrhoids are likely to recur after palliative treatment, but it is also true that many patients treated by these methods go for years without any recurrence, and some never have it.

The fact that the large majority of those who suffer from rectal diseases in the United States today, are treated by irregular practitioners, is due to the inability or refusal of the general surgeon to apply palliative measures properly. No operative method is without some immediate or remote danger, therefore, while a patient may be told that there is practically no danger to his life, there is always the possibility of results which are altogether undesirable. Of course such results are very improbable, but they do occur, and patients hearing of them become unalterably opposed to operative procedures, and the rad-

ical methods have been frequently brought into disrepute by being forced upon such individuals who suffer from imaginary disabilities and discomfort in the rectum forever afterwards In cases, therefore, with these aggravated fears and antipathies toward an operative procedure, it is better to adopt the palliative method, explaining thoroughly that they are not radical cures, but that by repetition they will give relief and maintain comparative comfort as long as they are continued.

The cardinal principles in the palliative treatment of hemorrhoids, consist in the prevention of prolapse and arrest of hemorrhage. The hemorrhage is always the most alarming symptom to the patient, and, as it may be excessive, it should be considered first. It is rarely difficult to stop the flow. Rest in horizontal position, cold applications, astringents, and local anesthetics may be used. The many proprietary preparations on the market, guaranteed to cure piles of all kinds, are sufficient evidence that no one remedy, is adapted to all cases. The intelligent physician will select his own remedy after making a definite diagnosis. The chief object is to prevent its recurrence. In the first place, obstructions to the portal circulation should be remedied at once, whether they be in the line of the vessels or in the liver itself. The diet should be regulated as to quality and quantity. Less food and more exercise is usually good advice in these cases, but there are exceptions to this rule. Restriction in the use of carbohydrates and alcohol is always necessary.

Having concluded that operative interference is indicated, the first step is to make a definite diagnosis and determine the exact pathological condition. It is absolutely wrong and extremely unsurgical to treat all cases of piles by the same operation, for piles vary as much as other diseases.

Of the large number of operations devised by various persons, three or four are, in the writer's opinion, worthy of consideration. In general terms it is well to remember, that that operation is best which sacrifices the least tissue, is painless and does not impair function.

At least thirty-six hours should be taken for the preparation of the patient for operation. The intestinal canal being thoroughly emptied and the parts rendered as nearly aseptic as possible. The use of local anesthetics for operative interference in this region, has kept pace with all departments of surgery. Like all other good things, there is danger of overdoing. It has been conclusively demonstrated that they are by no means devoid of danger, however skillfully employed. Their use is largely responsible for incomplete and bungling work. The performance of so-called minor operations in the office of the surgeon, however well equipped, with the exception of external hemorrhoids, is not to be encouraged. It is impossible to prepare your patient properly, or care for him adequately afterwards.

For general anesthesia, I prefer and use ether, unless contraindicated. The patient should be entirely under its influence before beginning any operation, and it is always well to advise the anesthetist when you are ready to begin, so that due caution may be exercised.

The violent and extreme dilation of the sphincter ani is unnecessary, and often harmful. Any undue traumatism predisposes to infection or tissue unrest, which is the proper name for that somewhat vague term, inflammation. Unnnecessary manipulation and violence to tissue, no matter what operation is practised, often add more to time and discomfort of convalescence, than the operation itself.

The operation of excision by means of one of the various methods devised, and the union of the parts by catgut sutures, is no doubt the ideal method, but the great difficulty in procuring an aseptic field and keeping it so, will always limit this procedure to selected cases, such as mixed and external hemorrhoids; especially those associated with prolapse of the mucous membrane. Only the pathological tissue should be removed, and no attempt should be made to substitute a major operation, when a minor one is indicated.

All bleeding must be controlled, and the stitches so placed as to secure good coaptation, and where they can be kept clean without causing undue discomfort.

Primary union can reasonably be expected if the after-treatment is properly attended to. This operation, however, is contraindicated if the ulcerated tissue cannot be eradicated, or the hemorrhoids are located so high that the field cannot be inspected during convalescence.

The clamp and cautery operation has come to stay, and is considered by many eminent men the only one worthy of consideration. It is especially well adapted to chronic cases with relaxed sphincters, where contraction is much to be desired. The technique of the operation is known to all of you, and will not be discussed; suffice it to say, that the ultimate result and comfort of the patient depend more upon its proper performance and after treatment than any minor operation in surgery. Its principal objection is the

large amount of cicatricial tissue frequently resulting.

The hypodermatic method of treatment employed by some American surgeons, demands some attention. The fact that it was and is employed by itinerants, should not deter us from investigating the method and the results obtained. Drs. Kelsey, of New York, and Andrews, of Chicago, have given it a fair trial, and now only use this method in certain selected cases of internal hemorrhoids with long pedicles, and then only in their quiescent stage. Dr. W. P. Agnew, of San Francisco, has been its most persistent and consistent advocate, and deserves much credit for the unselfish manner in which he has separated the wheat from the tares. Carbolic acid is the principal ingredient employed and experience has taught us that the stronger solutions are much to be preferred to the weaker ones. Its action is to produce devitalization and tissue necrosis. Can we not secure the same result more satisfactorily by other methods long in use, is the question to be settled by every operator.

The ligature operation, as performed by the ancients, resembles in many respects, the operation as done today. It comes down to us recommended by such of the ancients as Hippocrates and Galen. The majority of authors in later years and up to the present day, commend it as being one of the best operations for the cure of hemorrhoids. For instance, it is endorsed by Sir Astley Cooper, Burke, Cripps, Van Buren, Bodenhamer, Allingham, Mathews and others. The results which have followed this operation deserve the highest commendation.

In the ligature operation, Galen recommended the excision of that portion of the pile external to the ligature. Others simply placed a ligature around the pile and let it slough off, while some transfixed the center of the tumor with a double ligature and tied it on both sides.

The surgeons of today differ as to the best methods of applying the ligature. The majority, however, prefer the operation which was devised by the late Mr. Salmon, and popularized by the lamented Allingham of St. Mark's Hospital, London, where it has been practised for the last fifty years. This procedure differs from Galen's method only in so far as to exclude the nerves from the ligature and lessen the after pain, which is done by severing the skin and mucous membrane at the muco-cutaneous junction and applying the ligature in the sulcus thus made.

The merits of any operation can only be properly judged by considering both the good and the bad results as achieved by a competent operator. It is unfair to any operator or operation to select the weakest point, and criticize the work when poorly done by a novice. Scientific honesty should actuate our motives, and a sincere desire to employ the best methods in each individual case entrusted to our care.

Following any surgical procedure there are many remote diseases occurring with sufficient frequency to keep a thoughtful surgeon on the lookout for unforeseen complications for days and weeks, or until the patient's convalescence is at an end. Good assistants and well trained nurses are not always unmixed blessings, however useful and ornamental they may be in the sick room. Our responsibility, for lack of proper attention, should not be shifted to subordinates. If a man is too busy to give his work the attention it deserves, there are others who may not be so skillful, but are often more conscientious.

Because rectal surgery is classed in the field of minor surgery, does not make it less important. The percentage of imperfect results or deaths is higher in minor surgery than in pelvic, or gallbladder, or stomach surgery. The mortality resulting from whooping cough and measles was higher last year, than the combined mortality of diphtheria and scarlet fever. Who of us does not do better work when our patients are very sick, or a surgical operation requiring our best effort confronts us?

The post-operative treatment depends, first, on the nature of the pathological condition; and, second, the operation selected for the relief or cure of the same. The so-called ambulant treatment of diseases of the rectum is wrong in principle, as it violates the first law of nature in the restoration of any diseased or injured organ, namely, complete rest of the part, so that nature may do her duty in the shortest possible time.

The cause of ulceration is undoubtedly microbic. Both Dr. Klein and Prof. Sims Woodhead have made a most thorough investigation of the discharge from the ulcerated surface, and also of portions of diseased tissues, with a view to the determination of the cause of this disease. These investigations have not led to the discovery of any specific bacillus other than the bacillus coli communis, so that it is possible that this organism may under certain altered conditions of soil, be capable of producing the disease in question. The exact nature of the exciting cause is still in doubt, but that the predisposing case is an unhealed wound the histories of my cases clearly indicate. These records with few exceptions, show that ulceration only supervened in the operation wounds of patients who had been allowed either to leave

the hospital or to go about before complete cicatrization had occurred, and I have never personally met with an exception to this rule. I would strongly urge, therefore, that patients who have undergone rectal operations should not be discharged until their wounds have completely healed. It is true that partially healed wounds in the majority of rectal cases, proceed to complete cicatrization after the patient has been discharged, but the risk of infective ulceration supervening, is sufficient to justify keeping such patients in bed until the wounds are soundly healed. A week or two longer in the hospital is to my mind much preferable to the risk of contracting a disease, which may take years to cure and invariably gives to sequelae that decidedly tend to make the patient's life miserable, at least for a time, and in some cases to shorten it. Any operation on the rectum resulting in cicatrical tissue, predisposes to ulceration, as the nutrition of the parts is thereby involved.

The so-called hypodermic method of treatment of hemorrhoids is another prolific cause of ulceration. It is a recognized fact, that cicatricial tissue in the cervix uteri predisposes the parts to ulceration, making the location a good one for carcinoma.

W. J. Mayo in a recent article on cancer of the stomach, has this to say: "Especially must we be suspicious if in the history there are symptoms of old or recent ulceration. In our 39 cases, 56% showed direct evidence of carcinoma developed on ulcer."

Graham showed a clinical history of ulcer in over 50% of the cases of gastric carcinoma which have come under his observation, although years may have elapsed between the two diseased processes."

J. B. Murphy gives it as his opinion that the majority of cases of cancer of the stomach, will show precancerous symptoms of ulceration. If these conditions existing in the stomach and cervix uteri predisposes to malignancy, why would not similar conditions, so frequently found in the rectum, be responsible for like results. When we consider the fact that over 80% of malignant growths occurring in the intestines are located about the rectum and anus, and our inability to treat cancer satisfactorily in most cases, a new significance is placed on the importance of treating conditions predisposing to this sad ending.

This question cannot be settled by post-mortem evidence. For instance, suppose we were told that the post-mortem examination of one thousand women who had died of cancer of the cervix uteri, did not show a single one who had cervical laceration, would not the query at once arise, how entirely impossible it would be for the most skillful pathologist to determine from the specimen in question, whether there had ever been laceration?

Is this not equally true of cancer of the rectum? Before the patient dies all traces of the ulcer would be lost in the gross extent of the disease.

I have not attempted to exhaust this inexhaustible subject, but have only hoped to elicit a discussion on this very common affliction. It is devoutly to be wished that the successful treatment of hemorrhoids and other rectal diseases will the better enable the ethical physician to forestall and root out the itinerant and advertising local specialist, as well as to compete with his wide-awake fellow-practitioner, and in this way retain his own clientele, secure the fees arising therefrom, and maintain his social standing and dignity in the community in which he resides.

Humboldt Building.

SELECTED ARTICLE

HEAD SECTIONS, WITH A SUPERIOR METHOD OF ILLUSTRATING ANATOMICAL AND SURGICAL SUBJECTS.*

E. E. CLARK, M. D.

DANVILLE, ILL.

Eye, Ear, Nose and Throat Surgeon to Lake View Hospital; Lecturer to the Danville Training School for Nurses, etc.

So far as I have been able to ascertain, stereoscopic views have not been used, in America at least, to illustrate anatomical or surgical subjects. I believe the time will come when even our text-books will be so illustrated. A text-book would not need to cost much more to publish, for a small stereoscopic half tone would give a far better appreciation of the subject than the ordinary larger picture with the flat field.

Head sections are published from time to time in our journals to demonstrate the nasal passages and the various accessory cavities, but unless one goes back in his memory to some actual specimen to compare these pictures with one has but a poor appreciation of the relations intended to be conveyed by the flat picture.

The head sections here presented, if looked at with the naked eye, give the same appearance you see in the ordinary illustration. If, however, you will take the trouble to view them with the stereoscope, which is found in nearly every home, or can be purchased for

*The Medical Standard.

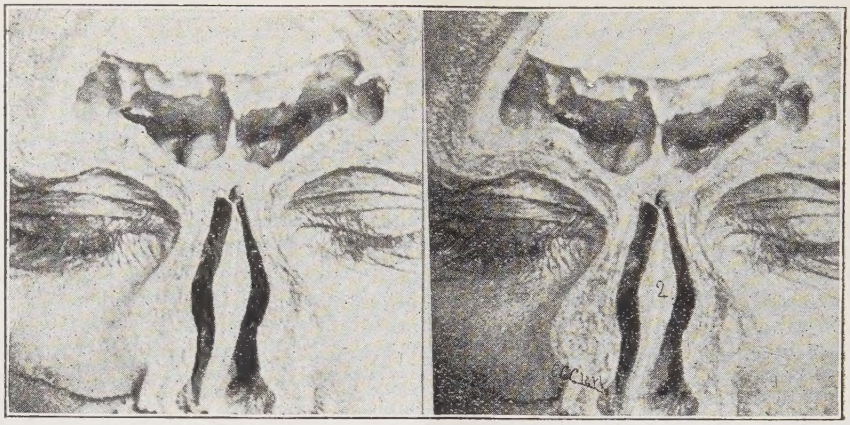


Figure 1.

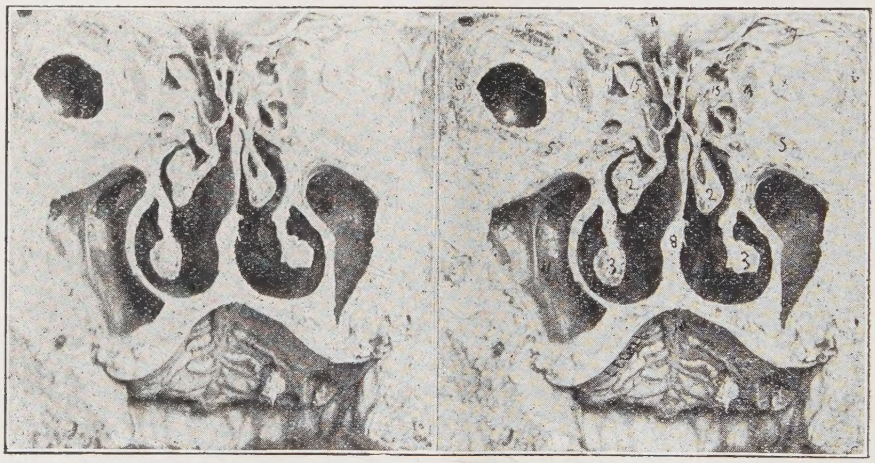
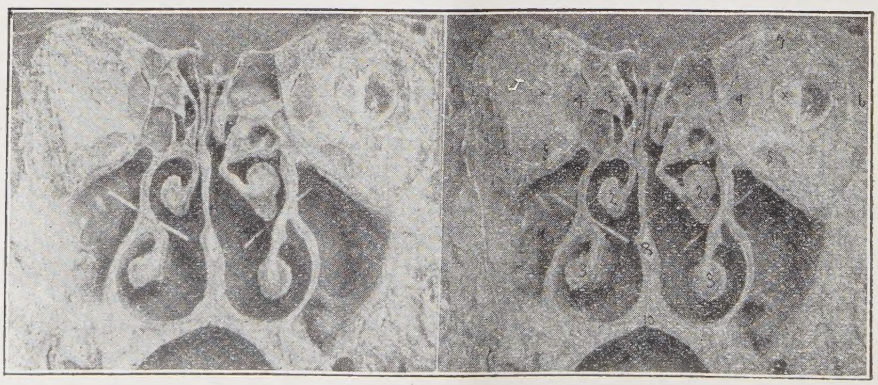


Figure 2.



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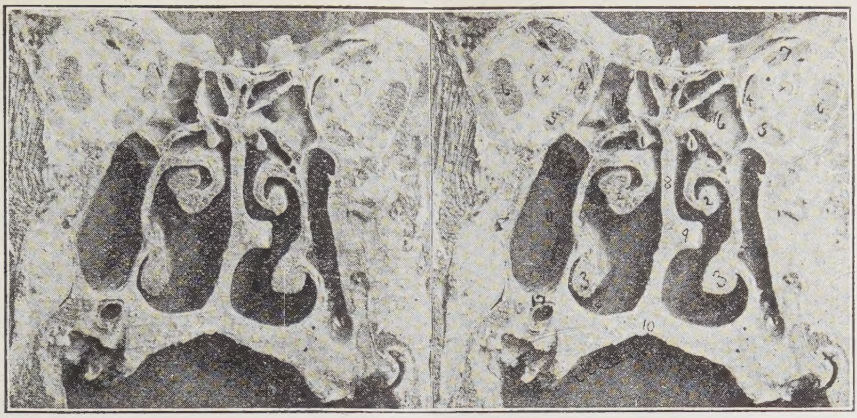

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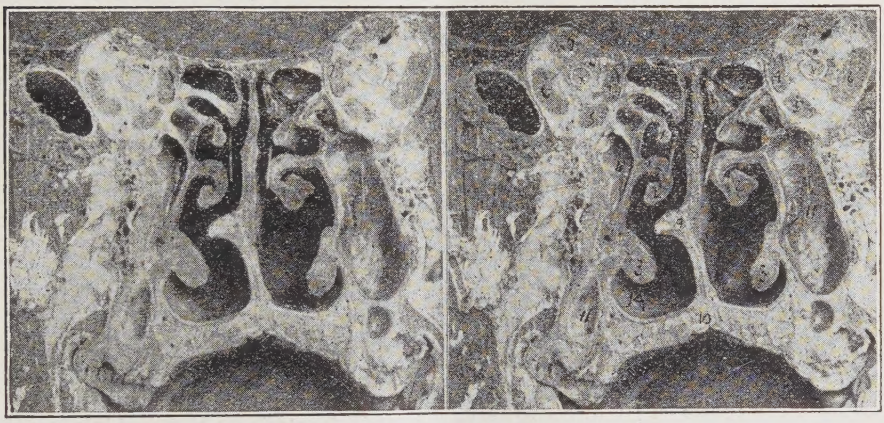


Figure 5.

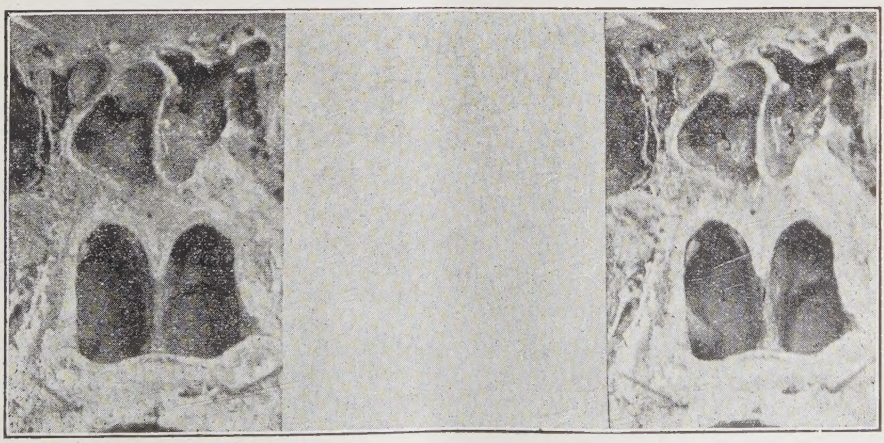


Figure 6.

twenty-five cents, you will have as full an appreciation of the subject as though you actually held the specimen in your hand.

A stereoscopic camera could easily be used to photograph the various steps of an operation which when viewed by the student would be far superior to viewing the operation from a distance of ten to twenty feet, besides having the pictures for frequent reference together with explanatory notes.

The coronal sections here presented to show the nasal passages and accessory sinuses were prepared by me during the winter of 1905 and photographed during the following summer, which required considerable time and material to get a correct picture to give the appearance of viewing normal sized specimens.

PREPARATION OF SPECIMENS.

The head was a very well developed specimen about forty-five years old. Profiting by the experience of Dr. J. W. Murphy of Cincinnati in the process of prolonged gradual hardening, the head was placed in formaldehyde solution for two years to thoroughly harden. After making careful and repeated measurements to determine about where the saw would cut through important structures, I placed the head in a water tight box, filled it with water, put it out on a severe winter night, letting the whole freeze solid; then by sawing through the lines previously marked on the box I obtained some most beautiful specimens.

I find the stereographs of these specimens most gratifying for a study of these structures.

The sections were made a little obliquely, thus giving two chances of cutting through important structures.

The mastoid illustrations, Figs. 7, 8, 9 and 10, which may prove of some interest, were worked out while I was pursuing a course in mastoid anatomy in the anatomical department of the University of Berlin in 1904.

The mastoid illustrations are absolutely of no value until studied with the stereoscope, when they become as comprehensive as the actual specimen.

To properly study these illustrations they should be cut from the journal, mounted on a card to be set in the stereoscope but this spoils the pages of the journal.

To anyone sufficiently interested who will write me I will send a full set properly arranged for the scope.

DESCRIPTIONS OF PHOTOGRAPHS.

Fig. 1. Five-eighths inch back of Supra Orbital Ridge.

1. Frontal sinus.
2. Cartilaginous nasal septum.

Fig. 2. Looking from behind forward one and five-eighths inches back of Supra Orbital Ridge.

1. Middle meatus.
2. Middle turbinate.
3. Inferior turbinate.
4. Internal rectus.
5. Inferior rectus.
6. External rectus.
7. Superior rectus.
8. Nasal septum.
10. Hard palate.
11. Right and left antrum of Highmore.
14. Inferior meatus.

x. Optic nerve.

In left eye ball is seen crystalline lens in position.

Fig. 3. Looking from in front back one and five-eighths inch back of Supra Orbital Ridge.

1. Superior turbinate.
2. Middle turbinate.
3. Inferior turbinate.
4. Internal rectus.
5. Inferior rectus.
6. External rectus.
7. Superior rectus.
8. Nasal septum.
10. Hard palate.
11. Antrum of Highmore.
13. Middle meatus.
14. Inferior meatus.
15. Ethmoid cells.

x. Optic nerve.

Two straws are seen passing through normal openings from nose to antrum.

Fig 4. Looking from behind forward three inches back from Supra Orbital Ridge.

1. Superior turbinate.
2. Middle turbinate.
3. Inferior turbinate.
4. Internal rectus.
5. Inferior rectus.
6. External rectus.
7. Superior rectus.
8. Nasal septum.
9. Spur, right side nasal septum.
10. Hard palate.
11. Antrum of Highmore.
12. Superior meatus.
13. Middle meatus.
14. Inferior meatus.
15. Ethmoid cells, bristle passing from one to another.

x. Optic nerve.

Two straws are seen passing upward and backward through normal openings into sphenoid cavities.

Fig. 6. Looking from behind forward three and one-half inches back of Supra Orbital Ridge.

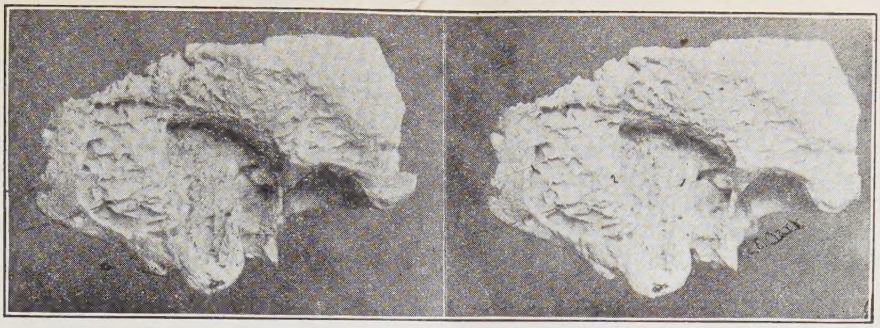
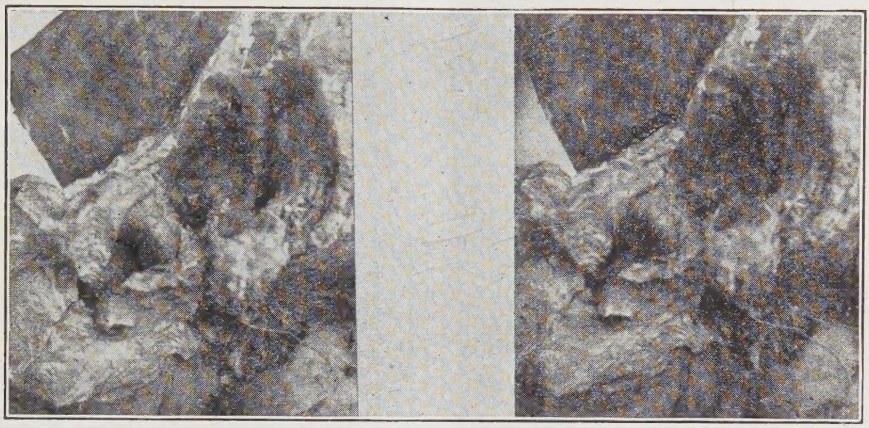


Figure 7.



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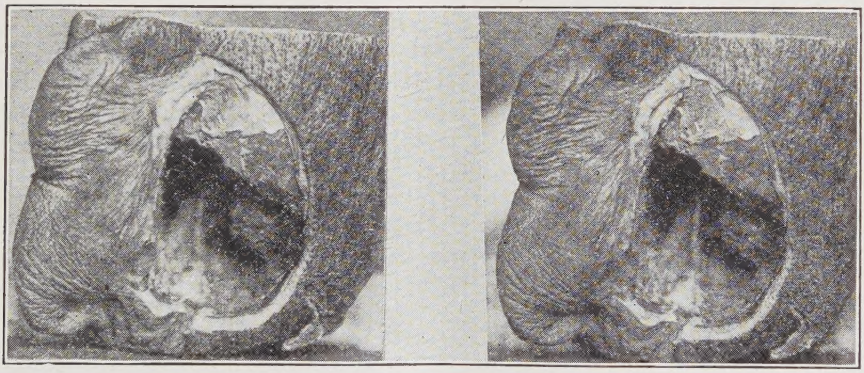

Figure 9.

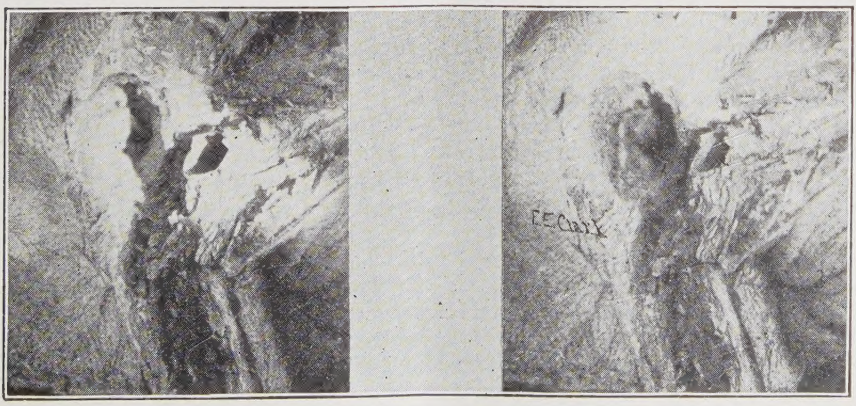

Figure 10.

1. Nasal septum.
2. Right and left posterior nares.
3. Right and left sphenoid sinus.

On the right side is seen a straw coming up from the nasal cavity into sphenoid sinus.

At lower part of figure are seen straws coming up through eustachian tubes

Fig. 7. Simply to show the wide distribution of the mastoid cells.

On the internal wall of the middle ear is seen the fallopian canal opened. Just above No. 1 is seen the smooth surface of the horizontal semi-circular canal. No. 2, lateral sinus. The bristle indicates the passage of an emissary vein to the lateral sinus.

Fig. 8. Showing the radial mastoid operation with the malleus and incus left in position and at the right the osseous wall of sinus is chiseled away to show the membranous sinus.

Fig. 9. Showing the radical operation with the descending portion of the facial nerve dissected out.

Fig. 10. Showing the radical mastoid operation with the facial nerve dissected out in its course across the internal wall of the middle ear as well as the descending portion.

THE MAN HIGHER UP.

"I see," said the Cigar Store Man, "that one of the medical experts in the Brouweri case testified that a short time after a man takes a dose of arsenic he begins to feel uneasy."

'But," cautioned the Man Higher Up, "you must remember that the 'M.D.' was on oath. In casual conversation a medical expert is as likely to say that soon after a man has successfully absorbed a dose of arsenic he manifests 'a disposition to attend a musical comedy, thereby hastening his finish. The testimony of a medical expert in a murder trial depends entirely on which side beats the other to him.

"Experts have been known to go where the big money went. In my time I have heard an eminent and erudite practitioner, who has devoted his life to looking into defective mental machinery, give his solemn opinion that a certain party's intellect had telescoped itself and was about as useful as an omelet. A few weeks later this same eminent practitioner, having seen a great yellow light, such as is usually associated with bills of large denomination, reversed himself without the use of either sand or a net, and as solemnly opined that the aforesaid certain party had a brain that Thomas A. Edison, Theodore Roosevelt or J. Pierpont Morgan would be glad to trade for.

"Distinguished authorities agree that everybody is more or less nutty, and any professional expert can prove it. They've framed up so many symptoms that if a man falls under suspicion and it is to anybody's object to establish that he wears an ossification under his hat, alienists can be hired to do the job at so much per day.

"Do you invariably pay five cents for your street car fare or L ticket? Do you make a practice of putting on your shirt before you put on your vest? When you look out of a window in your office, do you always see the same building across the street? Have you ever thought about what you would do if you had a million dollars? Do you puzzle yourself over the way Chinese laundrymen keep track of the things they are supposed to wash? Do you make faces at yourself when you shave? You do? Then you have dinosauri in your dome. Your think-tank needs soldering. Without any trouble at all you can get an alienist to make affidavit to it for $25."

"Is there no hope?" asked the Cigar Store Man.

"Oh, yes," replied the Man Higher Up.

"You can get another alienist to veto the first one for $50."—Martin Green.

THE legislature of Nebraska is considering the adoption of a bill to compel Christian Scientists to pass state board examinations in physiology, hygiene, bacteriology, pathology, symptomatology, and diagnosis, and to limit their practice to diseases without the province of the surgeon.

ST. LOUIS QUARANTINE BOAT.—The new quarantine boat of the health department made its initial trip to the Isolation Hospital, May 1. The boat has been built at a cost of about $5,000, and will be used for the conveyance of contagious-disease patients to the Isolation Hospital, two miles below Jefferson barracks.

ILLINOIS MAGNETIC HEALERS WANT A SEPARATE BOARD.—The Peoria Transcript reports that the magnetic healers of Illinois met and organized on May 10, at Peoria. About 75 persons were in attendance. The object of the meeting, it is stated, was to secure an enacment of a law by the state legislature that will permit the practice of magnetic healing. No doubt the next session of the legislature will see a bill introduced establishing a board of examiners for magnetic healers. It is truly a poor fad now-a-days which cannot ask for a separate board of examiners.

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OFFICIAL TRANSACTIONS.

POST-OPERATIVE ACUTE DILATATION OF THE STOMACH (GASTRO-MESENTERIC ILEUS).*

M. G. SEELIG, M. D.

SAINT LOUIS.

Associate Surgeon to the Jewish and Skin and Cancer Hospitals; Instructor in Surgical Pathology, Medical Department of St. Louis University.

WITHIN the last eight months, there have appeared two exhaustive papers by American authors (Finney, Conner) dealing with the subject of acute dilatation of the stomach. These two articles plus a contribution by Byron Robinson, in 1900, and two or three other casuistic reports represent the sum total of American effort in the study of one of the most grave and least understood of post-operative complications. This dearth of published material warrants the report of a single case. It should be said at the outset, however, that the purpose of this report is not to follow the usual lines that have been laid down in all of the previously published accounts of gastro-mesenteric ileus, the object being rather to insist upon the possibility of arriving at an early diagnosis of the condition, reference calling attention only incidentally to many of the unsettled points in the etiology and pathology of the disease, and here, it may be said, that aside from the facts of the sudden occurrence of dilatation of the stomach, and the subsequent serious and often fatal trend of local and general symptoms, there is no definitely established factor in the etiology or pathology of the disease. The truth of this statement is mirrored in the multiplicity of names used in describing the symptom complex:—Acute dilatation of the stomach, gastro-mesenteric ileus, arterio-mesenteric ileus, combined ileus and duodenal ileus.

In a fairly large proportion of the cases that have come to autopsy, the duodenum has been compressed by the mesentery to a degree sufficient to close off the intestinal lumen at this point; but it has been shown, that this compression is not an absolutely essential factor in the production of acute dilatation of the stomach. Whether the dilated stomach primarily causes the occlusion of the duodenum, by crowding the small intestines into the pelvis, thus tensing the mesentery so that it constricts the duodenum, or whether the duodenum is primarily constricted by the mesentery, causing a consequent gastric dilatation; whether a primary motor insufficiency of the stomach walls or a pronounced enteroptosis should be reckoned as etiological factors; whether or not, from the point of view of etiology, much importance should be accorded to a long, lax mesentery (Rokitansky), adhesions between loops of intestines (Treves), lax abdominal walls (Kundrat), lordosis, with a low situation of the duodenum (Schnitzler) excessively high intra-abdominal pressure, due, for example, to post-operative vomiting (Kelling), whether or not Zade is correct in his assumption that gastro-mesenteric ileus is never caused by the mere gravitation of the intestines into the pelvis, if all other intra-abdominal conditions are normal; whether a primarily dilated stomach may compress the duodenum, and finally, whether the administration of an anesthetic is a factor in causing the disease, are all moot points, the discussion of which is gone into at length, in the papers of Finney, Conner, Neck and Zade.

Our concern here, is not with the uncertain theories of the etiology or pathology of the disease; but with the eminently certain condition that there is a symptom complex, serious in nature, difficult of diagnosis, and grave as to prognosis, which threatens every patient subjected to operative interference. This condition has been termed gastro-mesenteric ileus, because it is characterized by gastric dilatation, caused in a large proportion of cases by pressure of a tense mesentery against the duodenum beneath it. A most important point to bear in mind is this: that after the process has once established itself, it constitutes a vicious circle. The more the duodenum is compressed, the more the stomach dilates, and the increasing dilatation of the stomach tends in turn, to maintain and increase the obliteration of the duodenal

*Read at the meeting of May 2d, 1907.

lumen. The term arterio-mesenteric ileus is used, because the superior mesenteric artery, coursing as it does between the leaves of the mesentery, renders efficient aid in compressing the duodenum.

The symptomatology of the disease is typified in the appended case report:

K. F., 35 years old, a native of Russia, and a blacksmith by occupation, was admitted to the surgical service of the Jewish Hospital, suffering from a large inguino-scrotal hernia, complicated by an undescended testicle. The patient was turned over to me for operation by Dr. H. Tuholske, surgeon-in-

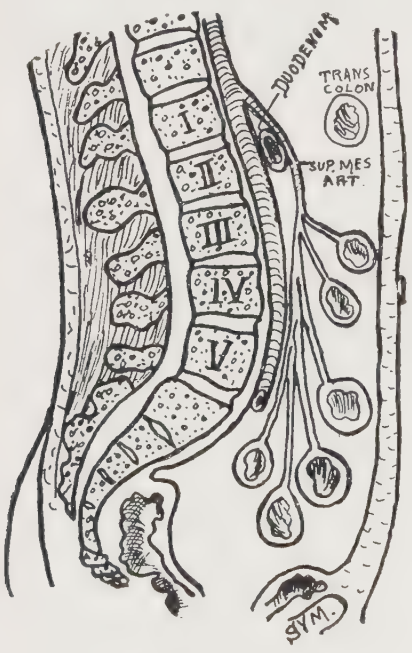

FIG. 1.

Sagittal section showing normal viscera (Finney)

chief to the Jewish Hospital, to whom I am indebted for the privilege of reporting the case.

History.—The family, past and present history were negative, except for the existence of a hernia that was sufficiently painful, at times, to cause incapacity.

Physical Examination. — The patient was a stocky, muscular individual, with particularly well developed abdominal musculature. Examination of the thoracic and abdominal organs and spine was negative. The right scrotal cavity was occupied by a mass about the size of half a cocoanut, which transmitted an impulse on coughing, and which reduced into the abdominal cavity with a gurgle. The right external ring admitted two fingers. The right testicle was situated within the abdominal cavity.

The urine was acid, clear, and contained no albumen, sugar or casts.

The operation of herniotomy was performed under ether anesthesia, the duration of the anesthesia being thirty minutes. The testicle was handled very little, owing to the fact that it was situated so far within the abdominal cavity that it was deemed wiser to leave it there, rather than to divide the vessels of the cord and attempt to put into the scrotum.

The patient left the table in excellent condition, with a full, strong pulse of 80. He regained consciousness half an hour later, and rested comfortably for twelve hours, after which he began to complain of nausea, and pain in the epigastrium. The patient was examined at this time by the house surgeon, Dr. Evers, who recorded, that there was slight distension, limited to the epigastric region, and a markedly tympanitic note over the stomach area. The distension and pain both increased, being relieved only temporarily, by loosening the bandage. Twenty-two hours after operation, the patient vomited, for the first time, a large quantity of a dark yellow fluid. After this, he reported that his pain was much less, and Dr. Evers noted that the epigastric distension practically disappeared. After a short period of time, however, the pain and distension reappeared, and despite gastric lavage, vomiting was repeated at intervals during the night. When I saw the patient, the next morning, his general condition was alarming. His facies were distinctly Hippocratic, and he lay in bed moaning and tossing about, in the state of nervous unrest so commonly seen as the initial symptom of peritonitis. His temperature was 100.5 deg., and his pulse was 100, small, and thready. There was marked distension in the epigastric region, and the distended area assumed the exact shape of a dilated stomach, the greater curvature of which reached three fingers below the umbilicus. There was a markedly tympanic note over the distended area; but there was no tenderness in the epigastrium. Nausea was still a prominent symptom, but the patient had not vomited for over three hours. Urine was voided voluntarily in sufficient quantity. The wound was examined, and was found to be in good condition. Flatus had been passed in moderate quantity through a rectal tube, and after a turpentine enema. The passage of flatus had not been followed, however, by any lessening of the distension. Hiccoughing of a most aggravating nature now set in, and the pulse gradually became accelerated until it reached 120 beats to the minute, the

patient presenting the symptoms of supervening collapse. These symptoms seemed to point indisputably to the onset of peritonitis, and I was just about to order constant rectal injection of saline solution, and the Fowler position, when the patient suddenly vomited, in projectile fashion, about ten ounces of foul smelling (not faeculent), dark brown fluid. His abdomen was bare and in full view at the time of vomiting, so that I was able to observe, that immediately coincident with the vomiting, the epigastric distension disappeared, as if by magic. Immediately after vomiting, the patient remarked that now, he felt entirely free from pain. This series of phenomena at once suggested acute dilation of the stomach. Gastric lavage was ordered, and a large quantity of dark brown, foul smelling fluid was washed out of the stomach. An analysis of this fluid showed it to contain blood, bile and shreds of gastric mucosa, infiltrated with blood. The patient was placed in an exaggerated Trendelenburg posture, and immediately after assuming this posture, the symptoms abated. Hiccoughing, vomiting, pain and distension ceased, flatus was expelled freely and voluntarily, and the pulse gradually slowed down to 78. All food was withheld by mouth, and rectal feeding was resorted to for the next twelve hours. At the end of this time, the foot of the bed was lowered again, with the result that within an hour, there was a recurrence of the pain, epigastric distension, hiccoughing, vomiting and rapid pulse. The foot of the bed was raised again, and immediately all symptoms ceased. The patient was kept in the Trendelenburg posture for the succeeding four days, his condition, all the while continuing normal. On the fifth day, the horizontal position was reassumed, with no bad results, and from this time on, recovery was uneventful.

Here then was a symptom complex, ushered in by the gradual development of abdominal pain, followed by distension confined to the epigastric region, anxious unrest, hiccoughing, Hippocratic facies, vomiting, increasing rapidity of pulse, and finally, by evidences of collapse. All these signs, associated with the fact that the peritoneal cavity had been opened previously furnished excellent grounds for a diagnosis of post-operative peritonitis. The only symptoms that weighed in a measure against the diagnosis of peritonitis, was the moderately free passage of flatus, and the absence of both abdominal tenderness and rigidity. The diagnosis of acute dilatation of the stomach was made on the distinct outline of the dilated stomach against the anterior abdominal wall, and the absolute disappearance of this outline immediately following the vomiting of a large quantitiy of dark colored fluid. The absence of peritoneal infection, and the presence of acute gastric dilatation may be assumed fairly, to have been confirmed by the course of the disease.

The practical crux of the whole question of acute dilatation of the stomach, lies in the close resemblance of the disease to peritonitis. The mortality in 102 cases of acute dilatation, collected by Conner, was 72.5 per cent. Unforunately, as is well known, the mortality following peritonitis is also high. Well directed treatment affords gratifying re-

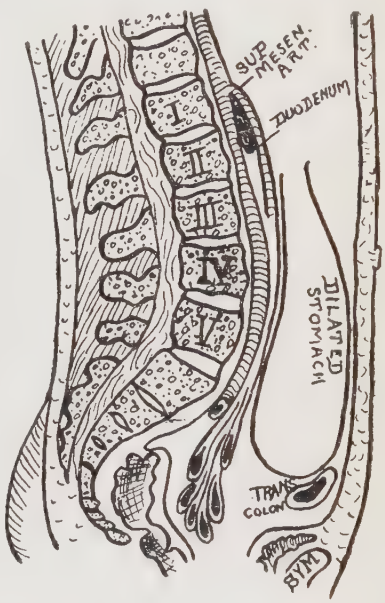

FIG 2.
Sagittal section showing compressed duodenum, dilated stomach, & intestines caught and imprisoned in the pelvis (Finney)

sults in both these diseases. Treatment based on a failure to differentiate between the two, however, often leads to a fatal outcome. The modern treatment of peritonitis demands that the toxic intraperitoneal exudates be kept away from the open lymphatic stomata that dot the under surface of the diaphragm, by using the so-called Fowler's position (head high, pelvis low). To reverse this position in a case of beginning peritonitis, would mean to gravitate the toxic exudate toward the diaphragm, thus favoring absorption of the toxins, rapidly, before the organism had time to call its complicated mechanism of immunization into play. With acute dilatation of the stomach, conditions are just the reverse. Among the many moot points in the etiology and pathology of this condition, one

fact stands out clearly, namely, that in a very large number of cases, the duodenum is compressed by the root of the mesentery, which is held taut over it by reason of the fact that the intestines are crowded into the pelvis, and held there by the dilated stomach. Such being the case, we can hope to release the intestines from the pelvis only by elevating this part of the body and lowering the head of the patient; in other words, by using the Trendelenburg position. To put the patient in Fowler's position would be the surest possible way of throwing an added guard around the already effectually imprisoned intestines.

Granting then, that the treatment of the two conditions, acute dilatation and peritonitis, varies diametrically, is it possible to determine definitely, when we are face to face with one or the other disease? Conner is undoubtedly correct, when he says that, "Acute dilatation is not difficult of diagnosis, if the possibility of its occurrence be but held in mind." Yet, a consideration both of my own case, and of those cases recorded in literature in which a diagnosis of peritonitis was not disproved until autopsy, forces the conclusion that a differential diagnosis may be extremely difficult, and at times, impossible. A factor of the utmost importance in the differentiation lies in being able to determine whether the abdominal distension was primarily in the epigastric region. Ordinarily, with simple meteorisms, the epigastrium is the last spot on the anterior abdominal wall to bulge, owing to the rigid resistance offered by the flanking costal arches. When the stomach dilates, however, even as the result of a simple acute indigestion, it causes a rounding out in the epigastric region. It is the observation of this early epigastric distension that is of such vital importance in diagnosticating acute dilatation of the stomach. The symptom is transient, and it may take only a short while for the stomach to assume such proportions that it distends the whole abdomen symmetrically, as do the paretic intestines in peritonitis. The case under discussion brought to mind how frequently, during my hospital interneship, I was called to relieve post-operative distension in patients who had been operated upon for hernia. In a large proportion of these patients the distension was confined to the epigastric region. It was our custom in hernia cases to apply a very tight starch bandage embracing the lower abdomen and the thigh of the side operated upon, and we used to think that the distension showed itself in the epigastrium, because the lower abdomen was compressed by the tight bandage. I now feel firmly assured that many of these cases were purely gastric in origin, despite the fact that I cannot recall an instance in which any threatening symptoms of a serious nature occurred.

And this brings us to the concluding point of the influence of tight abdominal binders and bandages as a causative factor in acute gastric dilatation. Several authors (Buzzard, Kelling and Willett), have called attention to the coincidence of acute dilatation of the stomach, and the wearing of plaster of Paris corsets, but I can find no mention in literature of the significance of tight binders or bandages applied after operation. A consideration of the lower half of the trunk demonstrates with what ease the mechanical hindrance of a too snugly applied dressing may predispose to the condition under discussion. This region may be divided into three areas: 1. The upper trunk area, made up of the lower part of the rigid chest wall. 2. The middle trunk area, made up of the yielding abdominal musculature. 3. The lower trunk area, made up of the rigid pelvic walls. An abdominal bandage then, if it be applied tightly, encounters firm bony counter-pressure at its upper and lower parts, but presses inward that portion of the abdominal wall lying between the ribs and the pelvis. In other words, a tight bandage causes a partial hour glass constriction of the abdominal cavity, the lower bulb of the glass corresponding to the flare of the pelvis. It is easy to conceive how loop after loop of intestine might work its way gradually into the pelvis, by means of peristalsis, and it is equally easy to comprehend the difficulty encountered by these loops in working their way out, owing to the constriction in the abdominal wall, above them. If we grant the possibility of such a sequence of affairs, we have at hand, to say the least, a possible factor in the imprisonment of the intestines in the pelvis. This imprisonment furnishes a cause for the tightening of the mesentery over the duodenum, and therefore for the consequent gastric dilatation, which, in its turn furnishes a further bar to the return of the intestines to their normal situs. It must be borne in mind, that when a bandage or binder is applied immediately after operation, while the patient is still under the influence of the anesthetic, and the abdominal musculature relaxed, constriction is much more easily accomplished than it could be in a non-narcotized patient.

As was previously stated, no attempt is made here to discuss either the entire literature, or the moot points of acute dilatation of the stomach. The object has been rather to present a case that illustrated the possibility of establishing an early diagnosis, to emphasize the pernicious effect of tight abdom-

inal bandaging, to call attention to the importance of early inspection of the abdomen after operation, and finally to demonstrate the efficacy of gastric lavage combined with postural treatment as means of overcoming the disease.

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DISCUSSION.

Dr Gellhorn.—This is an important subject, and the doctor is quite correct in saying there is not much in the literature on it, yet I know of three other papers within the last year in America dealing with the subject. In one of these papers, by Dr. Apple, the statistics of 49 cases are given. I have been particularly interested in the paper because I have had some experience with the condition mentioned. I have had three cases of post-operative acute dilatation during the last year; the first two of which ended fatally. Dr. Seelig has mentioned some of the etiologic factors which have been supposed by various authors to cause this complex of symptoms, yet their very multiplicity speaks against a uniform reason for the occurrence of this condition. The first who wrote about the condition took it for granted that a primary dilatation of the stomach forced the small intestines down into the pelvis. Then there is a large group of men who suppose that the small intestines primarily sink into the true pelvis, thus pulling on the root of the mesentery and constricting the duodenum. This explanation seems to be plausible, particularly in cases where large abdominal tumors have been removed, yet we know of the occurrence of acute dilatation in cases where operations were performed on parts of the body far removed from the part, for instance, on the tendon of achilles, removal of a tubercular jaw, and other operations which do not in any way disturb the abdominal viscera, showing that there must be other factors at work which may cause this condition. Then von Herff, in Germany, who wrote a very extensive paper on this subject, considered chloroform as being the probable cause, yet, there are cases where nothing but ether was used, for instance, my own cases, so the anesthetic cannot be considered the cause. A pre-existing gastric condition has been traced in some cases, though not in all. We must admit that at the present date we are unable to give a satisfactory explanation, and considering the fact that acute dilatation may follow operations which have nothing to do with the abdomen, I am not ready to subscribe to the dictum of Dr. Seelig that the tight fitting bandage is the cause of this condition. Personally, I have no explanation to offer as to the cause of the condition. In a number of the cases in the literature, it was stated that the patients were nervous and excited. This has been the case in my own practice. All three were women with fibroids. The first had a small fibroid. The operation was very smooth and easy, and finished within fifty minutes. She left the table in the very best condition, and the gastric symptoms appeared the morning of the third day. After an enema and some stool and flatus passed, I felt greatly relieved, yet the afternoon of the third day the symptoms returned in increasing intensity, and the vomiting practically did not stop at all. The patient went from bad to worse and died on the evening of the seventh day. Dr. Fahlen and myself performed a post-mortem, and the diagnosis was easy when we found the greatly distended stomach, which occupied the greater part of the abdomen in the form of a gigantic tube, and a second tube almost the size of my arm running parallel. Positively no signs of peritonitis or intestinal ileus were present. The second case occurred two months later. This was a case in which a very large fibroid filling the entire abdomen was removed with some difficulty. The patient died twenty hours later. She had been very well until the evening of the operation, and during the night this complex of symptoms occurred, which, within a few hours, resulted in death. Post-mortem was done within an hour after death, and as in the previous case, no signs of peritonitis were found,and again this dilated stomach was found, which, in this case, did not extend far below the umbilicus. In the paper referred to by Dr. Seelig, attention is called to the fact that most diagnoses made heretofore were by men who had had a case of that sort resulting fatally. I benefited by my experience, and was able to diagnose a case of the worst kind about four or five months later in which a huge fibroid of the ovary was removed in a woman greatly emaciated and highly neurotic, as much as the other cases, and who came to the table in a rather decrepid condition. Here the condition was good for forty-eight hours, and was succeeded by a very pernicious dilatation of the stomach.

Fortunately, the treatment in this case instituted in time met with success. Regarding treatment, Dr. Seelig has shown us that a change in the position of the patient

may be a life-saving procedure. In my case, I pursued a different course. I kept the stomach empty by employing the stomach pump and gastric lavage every hour for about six hours. Enormous quantities of fluid were emptied through the stomach tube, yet, the stomach filled up again and the patient began to vomit within an hour. After the last two or three gastric irrigations, I permitted one ounce of bismuth subnitrate dissolved in a pint of water to run into the stomach. This mixture was left in the stomach for five minutes until the bismuth had time to settle on the walls of the stomach, and then the clear water was siphoned out. If I should ever have another case of this sort, I shall combine this method with the one pursued by Dr. Seelig in order to make assurance doubly sure. And I should, also, insist on a consultation with an internist, because the question of feeding a patient with such an irritated stomach is about as difficult as the problem of keeping the stomach from filling with fluid. I feel that our sincere compliments are due Dr. Seelig for his diagnostic acumen, and the promptness in taking such steps as saved his patient's life.

Dr. Deutsch.—I cannot add anything to the remarks made regarding the etiology, but I saw this case operated on, and also afterwards. I was glad to see the condition recognized so quickly after the operation. We for a little while doubted whether it was gastric dilatation or just an ordinary stomach disarrangement, but the treatment surely shows the diagnosis correct. I believe with Dr. Gellhorn, there is some neurotic condition responsible for this. I doubt whether tight lacing, constriction or bandage is responsible. I do not think that all cases with these symptoms are really this condition, as given by the writers. I believe if there is one thing that should be seriously taken into account it is the anesthetic, because we do know how many symptoms result from the anesthetic. Why cannot these drugs cause this condition also? We are very apt to expect this condition when the patient is succumbing to some condition of the intestine. I think we ought to appreciated the doctor's report of this rare condition, for we will all be on the lookout now for this accident.

Dr. Rassieur.—As the doctor states in his paper, there are few cases in the literature. I have seen a few of these cases. The last one that came to my knowledge was a patient having perforated ulcer with peritonitis around the ulceration. The ulcer was closed and the usual treatment applied to the peritonitis, and the case did quite well for three days. After that acute dilatation developed. The case came to post-mortem, which established the diagnosis.

Dr. Ehrenfest.—There can be no doubt that the mechanical explanation which the essayist has offered is a very plausible and attractive one. If that explanation, however, is proper and applies to a majority of the cases of acute dilatation of the stomach, I think we would meet this condition with striking frequency after the removal of large uterine tumors filling the pelvic cavity. The literature does not show this to be the case. Another point occurred to me while listening to this interesting paper. After labor we have very similar conditions. It is the common practice to apply a tight abdominal binder as soon as the uterus is emptied. This binder has the tendency to press the intestines down into the lower abdomen. I have no knowledge of this practice ever having caused the symptoms of an acute dilatation of the stomach. This experience in labor cases, in my opinion, must be considered a point in favor of the theory that there must be besides the mechanical still some other factor which leads to this unfortunate complication.

Dr. Seelig (closing the discussion).—I have been afforded the satisfaction of eliciting by this paper just what I was striving for, namely, discussion. You have doubtless all noted that those subjects are most fascinating which are on the borderland between medicine and surgery. This subject is distinctly a very live one, and one of as much interest to the internist as to the surgeon. How live a subject this is, and how obscure the disease is was brought to my mind by the death of a friend residing in a distant city. The patient began to suffer pain at 9 o'clock in the evening. It was similar to the pain caused by acute indigestion, yet death occurred the next morning. There had been no surgical interference, and the whole history of the case seemed to indicate poisoning of some sort. A post-mortem examination disclosed idiopathic acute dilatation of the stomach. Many cases will run on and terminate as this did so long as the physicians are not thoroughly acquainted with the symptom complex of gastro-mesenteric ileus. It was for this reason that I wished to call attention to it, passing over the obscure points and bringing out the important facts of the disease.

As to tight bandages, I have been misunderstood. I did not mean that tight bandaging is the only important factor in acute dilatation. The point is this, the rational study and cure of a disease consists first in the de-

termination of the pathological basis of the disease, and then in establishing methods to combat those factors which set that pathological process into action. Now, it is an undisputed fact, that in by far the largest majority of these cases that have come to autopsy it has been found that the duodenum is compressed, and that the intestines occupy a position not occupied by them normally. Now, another fact of universal recognition is that tight abdominal bandages are evil and work evil. You cramp the abdomen after operation, and you set into operation processes which may cause trouble. I say simply this: that in the majority of cases we find a certain pathological state of affairs; and that it is incumbent upon us to do as little as possible to bring about that state of affairs. If, on the other hand, the disease is already developed, we must do all that is possible to relieve the condition known to exist in the great majority of cases. I do not mean to say that tight bandages are necessarily causative agents, but I do say I have seen gastric disturbances of great measure disappear after loosening tight bandages.

SPECIMENS OF ECHINOCOCCUS CYST, SCOLICES, CYST WALL AND CONNECTIVE TISSUE CAPSULE.

A. H. MEISENBACH, M. D.

ST. LOUIS.

I have specimens here which are interesting in connection with a case presented to the society a short time ago. That was a case of pulmonary echinococcus cyst. I present here some daughter cysts. These vary in size from the size of a pea up to the size of a goose egg. These daughter cysts form in the cuticular wall of the original cyst. Now, as to the development of the cyst, the egg reaches the intestinal canal and the six hooked embryo presumably getting into the blood channels, lodges most frequently in the liver, where the larva changes its shape and forms a cyst. If the cyst remains sterile, there is no forming of scolices. Again, retrograde changes take place, calcification or formation of putty-like mass; in this putty-like mass may be found the hooklets. The further development of the cysts would be where daughter cysts are formed. These are formed within the original cyst wall projecting into the cyst cavity usually, having the same kind of structure as the original cyst. On the inner wall there are formed capsules and from these capsules develop the heads of the scolices, or the heads of the future tapeworms. I have here some daughter cysts in which you will see some little chalk-like specks which are doubtless the scolices. Sometimes these scolices project into the cavity singly, and sometimes in numbers. The first specimen under the 'scope shows the scolex consisting of two parts separated by a constriction. At one end are a number of radiations which are the hooklets.

The second specimen is that of the cyst wall itself. There you will see the fine striations. There is no cellular structure. The echinococcus cyst causes quite an extensive fibrosis of the surrounding tissues, from a connective tissue capsule, as is to be seen under one of the 'scopes.

DISCUSSION.

Dr. Rassieur.—The specimens are quite interesting. I wish to add also that the echinococcus is quite rare in America, and arouses great curiosity. In certain parts of Europe the cases are frequent. In Vienna the post-mortems frequently showed the condition with daughter cysts. Sometimes when we would get one we would get another the next day. There was a monogram written by Possett in 1900 at Innsbruck in which he reviews the history of every case reported. It was very interesting, and in looking over the list of names I noticed the names of Dr. Henry H. Mudd, and also Dr. Carson, of St. Lous, each of whom reported a case. I believe Dr. Carson reported one occurring in the brain. I have in my collection several specimens, and among them one with giant cell formations, and in looking up the literature I find that there are on record changes; in fact all the changes produced by tubercle bacillus have been known to arise in the neighborhood of these cysts.

PREAURICULAR pain is often caused by an alveolar inflammation.

PLAGUE IN INDIA.—The gravity of the plague situation in India is evident from a report stating that during the week ended April 13 there were 87,161 cases of plague and 75,472 deaths, an increase of 14,000 in the number of cases and 12,000 in the number of deaths from the previous week. During the six weeks ending May 11 the deaths reached a total of 451,892. From October, 1896, to December, 1906, the total deaths from the plague were 4,411,242, and during the first three months of the present year 495,000 deaths are known to have occurred. There has also been increased mortality from all other causes. The death rate for the whole of India has increased steadily for the last five years from 29 per 1,000 in 1901 to 36 in 1905.

THE MEDICAL FORTNIGHTLY

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EDITORIAL

Another Consolidation Project.

ST. LOUIS has two medical organizations which are so alike in their purposes and aims, and are so closely entangled in their business affairs that it has been frequently remarked by outsiders as strange that they are not consolidated in one body: we refer to the St. Louis Medical Society and the St. Louis Medical Library Association. Each of these bodies recruits its membership from the same people, solicits support from the same people, and depends on the same people for its continuance. Each has for its object the scientific betterment of the profession without forgetting an endeavor to unify and to cultivate friendly intercourse. With a few exceptions the membership of the Association is made up of members of the Society. Unfortunately all members of the Society are not members of the Association. The Society leases its landright from the Association and uses certain rooms in its building; it pays considerable sums to the Association for rent and for care of the building, and the affairs of the two are so closely woven together that the discontinuance of either could be accomplished with great difficulty, except by incorporation in the other. The society is growing rapidly, and its scientific strength is increasing in a way little short of phenomenal; the Association has a splendid collection of books and pamphlets which are admirably housed. The library is being used by a few physicians, when it should be the scene of constant activity.

Consolidation would work to the advantage of both organizations. For a smaller aggregate outlay better service and attendance could be given and the range of usefulness would be materially broadened. It would be a distinct advantage to have membership in the society include library membership, a rapid increase in the already remarkable growth would be a result. It is also suggested that the merger would give opportunity for the developmennt of social intercourse within the profession, the rooms on the lower floor of the building being admirably suited for use in this connection. Every argument which can be brought forward is in favor of the merger, except such as come from a narrow view of the situation and a lack of professional patriotism.

The subject of the possibility of a merger has been discussed from time to time since the library became well established, but until the present neither organization has given the subject official attention. We are glad that the Medical Society has taken the initiative, and that its membership has been asked to express themselves. When the Society has acted favorably in the matter the Association will be invited to consolidate with us.

The Missouri Medical Association.

THE 1907 meeting of our State association was not one which calls for any exceptionally flattering comment, it may have been the backward season and cold weather, or it may have been some hidden influence which was responsible for a smaller attendance than should have been and for some lack of enthusiasm on the part of those who were there. About 300 physicians were registered, but so many made their stay a matter of one day, and in several cases even less, that the number on the ground at one time must have been considerably less than the total. A splendid scientific program had been arranged for both the medical and the surgical sections, and it is a matter of satisfaction that there were fewer absentees among those who had place on these programs than usual. Criticism of the meeting cannot include any disparagement of the general character of the scientific papers presented, for they were of a high degree of excellence. But the criticism has been heard that the meeting seemed to lack spirit, that it did not move along, that things started late and dragged when they did start. An impression was imparted that the strings were not being pulled promptly and that there was consequent hesitation. We do not purpose entering into the business transacted by the association at this time, either to commend or to disapprove, though matters were passed which would call for each attitude from us. But we would urge on those who have so long and so successfully managed this body some rec-

ognition of its tremendous growth and of the rights of the large body of men whose coming is the explanation of this growth. Precedent and custom are both matters which can only have meaning to the more recent members when they are explained in the organic law of the body; it is very bad policy to appeal to precedent in a matter which cannot be explained as strictly according to law. A large body of the membership is critically inclined toward the present dynasty, because of certain acts touched on above, and unless the situation is delicately and skillfully handled some radical changes will result. We understand that one of the officers elected

DR. W. S. ALLEE
OLEAN, MO.
President-elect Missouri Medical Association.

was ineligible to the office which he was elected according to the law; this should be remedied with no delay.

The election resulted as follows: President, Dr. W. S. Allee, of Olean; vice-presidents, Drs. T. B. Cook, Rayville, A. H. Vandivert, of Bethany; Chas. P. Hough, Jefferson City, J. P. Dunigan, Sullivan, and O. F. Pile, Memphis; secretary, Dr. A. W. McAlester, Jr., Kansas City; treasurer, Dr. J. Franklin Welch, Salisbury; councilors, Dr. L. W. Dallas, Hunnewell; Dr. Woodson Moss, Columbia; Dr. W. B. Dorsett, St. Louis; Dr. F. J. Lutz, St. Louis; Dr. F. L. Keith, Flat River; Dr. C. L. Evans, Oregon, Dr. D. R. Corbin, Brookfield, and Dr. N. P. Wood, Independence; Committee on Public Policy and Legislation, Dr. C. E. Fulton, Springfield, Dr. H. E. Pearse, Kansas City, and Dr. Geo. W. Wilson, Nevada.

Springfield, Mo., was selected as the next place of meeting.

Health Department Changes.

In reorganizing the health department Health Commissioner Bond has changed the personnel to a considerable degree. The changes in the heads of our city hospitals have been announced in these columns; changes in subordinates positions have lately been announced and the retirements and appointments are interesting. Retirement in this connection carries no hint of inefficiency, being in most cases prompted by the person retiring who has other plans than continuing in a public position.

Those to retire from the City Dispensary are Drs. Charles C. Fowler, E. H. Henckler, Edmund Taake and J. M. Blakemore. The appointments announced for the dispensary are Dr. M. C. Tuholske assistant chief dispensary physician; Drs. J. J. Singer and Albert Beisbarth, promoted from vaccine to dispensary physicians, and Drs. J. F. Gallagher, Allen G. Wainwright, T. R. Mulford and M. F. Khouri, vaccine physicians.

At the City Hospital Dr. C. H. Shutt is named assistant superintendent and Drs. Rodney Bunch, F. J. Sullivan and F. C. Esselbruegge senior assistants.

Dr. Martin J. Glaser is named physician in charge at the Emergency Hospital, and Drs, Samuel F. Lipsitz and Marsh Pitzmann as his assistants.

Dr. C. M. Barr is made Assistant Superintendent at the Female Hospital, and Drs. Fred F. Zelle, Albert Boder and O. R. Engelmann senior assistants.

Dr. G. R. Barbour is appointed assistant physician at the Poorhouse and Dr. R. A. Collins at the Insane Asylum.

Washington University Medics Graduate.

The annual commencement of Washington University Medical Department were held at the Odean on the evening of May 23. A class of fifty young men were graduated.

The exercises were opened with prayer by Rev. John W. Day. Winfield Scott Chaplin, A.M., LL.D., chancellor of Washington University, conferred the degrees of doctor of medicine. William H. Warren, Ph. D., assistant dean of the medical faculty, presented the prizes to the winners. One prize of $50 was won by George

Bruce Lemmon. Another prize of $50 was won by Harvey Densmore Lamb. The "Curtman prize" of $25 was awarded to Thomas Frank Wier.

Arthur Dean Bevan, M.D., of the University of Chicago, Ill., made an address on "Medical Education."

Walter Matthew Jones received highest honors and Thomas Dupuy Woodson second highest. Others who received high honors were: Jacob Bruce Patterson, Flave Gentry Pernoud, Dallas Case Ragland, Llewellyn Sale, George Bruce Lemmon, Martin George Fronske, George Blaine Crow, John Leslie Courtright and Samuel Taylor Bassett.

Following is the graduating class, numbering fifty:

Leo George Bartels, Samuel Taylor Bassett, John Anderson Bowles, Hiram Jackson Clark, William Henry Cook, Louis Joseph Cordonnier, John Leslie Courtright, George Blaine Crow, William Allen De Long, Charles Hall Dixon, Arthur McDonald Freels, Martin George Fronske, Raddad Shahdan Gazelle, Herbert H. Gipson, Robert Quincy Gray, Lawrence Henry Hill, Estill Donan Holland, Charles Howard Jameson, Walter Matthew Jones, George Bruce Lemmon, Frank Seymour Luckey, Gustav Anton John Ludwig, Herluf Gyde-Lund, Sydney M. MacLean, James Burlington McCubbin, Edgar Garfield Merwin, George Fred Middlebrook, Lee Elworth Monroe, Cleve Crumby Nash, Percy B. Newman, William O'Rielly, Jacob Bruce Patterson, Burton E. Paul, Flave Gentry Pernoud, Harry Prewitt Potson, Dallas Case Ragland, Gustav H. Reinhardt, William Lafayette Rich, Leonard Hughes Robinson, Grandison Delaney Royston, Llewellyn Sale, Edward Alexander Schweninger, Michael Shadid, Arthur Marion Sparling, Raymond Mills Spivy, James Goree Story, John Ritter Sutter, Charles Samuel Jonathan Tillmanns, Paul Vinyard, Thomas Dupuy Woodson.

Death of Dr. Frank L. James.

Dr. Frank L. James, for eighteen years editor of the pharmaceutical and scientific departments of the National Druggist, died at his home in this city on the evening of Sunday, May 19, of erysipelas. His illness was of two weeks duration, a fatal termination was not expected until within a few days of his death.

Dr. James was born in Mobile, Ala., August 27, 1841. His education was begun at home and completed in Germany and Paris. He served in the Confederate army during the Civil War and was prominent during the period of reconstruction. His facile pen and keen insight made him a power at a time when just such men were most needed. He came to St. Louis in 1877 and began the practice of medicine; during the early days of his practice here he attained considerable note as a surgeon, and was easily the foremost microscopist of that period, but his natural bent was literary, and to literary work he subjected his professional prospects. Of recent years he had entirely withdrawn from practice and devoted his whole attention to the exacting duties of his position on the National Druggist.

DR. FRANK L. JAMES.

Dr. James was a most versatile man, though out of the practice of medicine he was well abreast of the latest advances in the science. In general literature there are few readers who cover a wider range and who so completely master the subjects read. He had an absolute familiarity with five languages, with each of which he could speak, read and write with perfect accuracy and readiness. Only those who knew him familiarly had even a slight idea of the breadth and depth of his intellect and his charming personal-

ity. He was a wonderful man whose true worth many never discovered. By his death the St. Louis profession loses another man whose place can hardly be filled.

Death of Dr. A. C. Bernays.

Dr. Augustus C. Bernays died at his home, 3623 Laclede avenue on the afternoon of May 22d, of apoplexy. Though his health had been such for the past two years as to necessitate a relaxation of his professional activities to a considerable degree and the devotion of considerable attention to its preservation, there had been no reason to apprehend impending fatality. The suddenness of death's coming had been predicted by the doctor, and we have every reason to believe that it is in this form that he would have preferred to have met it.

Dr. Bernays was born in Highland, St. Clair county, Ill., on October 13, 1854. He was the son of Dr. George J. and Minna Bertrand Bernays. The father was a physician of fine ability and his mother was a woman of surpassing intellect, having in her earlier days been a teacher at the famous St. Mary's Hall in London.

Starting life with the greatest of mental and physical vigor, Dr. Bernays enjoyed the best educational advantages from his youth up. At the home in Illinois he was privately instructed, gaining a fair knowledge of French and German and the rudiments of an English education. His scholastic studies were continued in the St. Louis schools when the elder Bernays removed to this city.

Having completed his scholastic studies and ready for an academic course, the younger Bernays matriculated at McKendree College and was graduated from there with the degree of bachelor of arts before he was eighteen years of age. The trend of his genius being clearly indicated, the question of the vocation he would follow was never in doubt. Dr. Bernays was sent immediately after leaving McKendree College to Germany, where he studied medicine in the famous university at Heidelberg. There upon graduation, in 1876, and receiving the doctor's degree, he stood at the head of his class, getting the "summa cum laude," which was the first time that honor had been conferred upon an American. He remained in Heidelberg a short time after graduation and became assistant in the academical hospital. There he added to his already vast knowledge of operative surgery by association with Drs. Gustav Simon and Herman Lossen. After leaving the hospital he took a postgraduate course under Baron von Langenbeck, one of the most accomplished men of his time, at the university of Berlin.

Dr. Bernays then went to England, passed the examination, and was made a member of the Royal College of Surgeons. Soon after that he returned to St. Louis and entered regularly into the practice of surgery. At the very outset the thoroughness of his education and his skill as an operator were apparent.

Dr. Bernays was easily one of the few surgeons who stand pre-eminent in America, the delicacy of touch, keenness of vision, steadiness of nerve and absolute knowledge of human anatomy which he possessed were little short of miraculous. The medical profession needs not be told of his daring accomplishments in the field of surgery or of the many *first operations* which he did to the wonder of the surgical world. He had also an especial gift as a teacher, and though for some time withdrawn from active college connection he was to the day of his death surrounded by younger men who asked nothing better than to serve with him and to learn from him.

Dr. Bernays was an agnostic and his funeral was such as he had repeatedly expressed himself as desiring it to be. There was an absence of religious observance which seems regrettable to those who see things differently. Addresses were delivered by Dr. Carl Barck and Mr. Fred Lehmann. The active pallbearers were: Drs. G. W. Cale, Willard Bartlett, George Krebs, Wm. W. Graves, Jackson Miller, Jesse Myer, W. H. Vogt and Robert E. Wilson. Honorary pallbearers: Drs. A. Kleinecke, H. M. von Starkloff, H. Rothsstein, Hugo Summa, C. G. Chaddock, Prof. Heller, Messrs. Geo. S. Johns, William Marion Reedy and W. A. Kelso. The ushers were: Drs. E. E. Kurtzeborn, H. Gettys and J. C. Hallam.

Dr. Bernays was not married. His surviving relatives are two sisters, Miss Thelka and Mrs. Lilly Wislocki, and two brothers, Clemens and Walter.

Tri-State Medical Society.—The next meeting of the Tri-State, (Missouri, Iowa, Illinois) Medical Society, will be held in Moberly, Mo., the third Tuesday in September. Titles of papers should be sent to the secretary without delay. A number of papers have already been promised; an interesting and instructive meeting is anticipated. Following are the officers of the society: President, C. F. Wahrer, Ft. Madison, Ia.; 1st vice-president, Bertha Van Hoosen, Chicago; 2d vice-president, T. C. Witherspoon, Butte, Mon.; secretary, E. G. Paxton, Chicago; treasurer, Emory Lanphear, St. Louis.

City Hospital Adminstration Building.—The new administration building of the City Hospital has been lately completed, and the offices have been moved thereto. The new building is on the east side of the grounds and occupies an imposing position. It contains the business offices of the institution and the living quarters of Superintendent Kirchner and his assistants and internes. It has already been discovered that the building is altogether too small for the purposes for which it was erected, and an addition at an early date will be an imperative necessity. The west building which has been vacated will hereafter be devoted to the care of contagious diseases.

DR. W. C. G. KIRCHNER,

Superintendent St. Louis City Hospital; President Medical Society of City Hospital Alumni.

The St. Louis Children's Hospital.—A new charter for the St. Louis Children's Hospital has lately been secured, which makes possible a training school for nurses, and such an institution will be at once inaugurated. The school purposes only the nursing of children, and it is thought such especial fitness for this work will characterize its graduates that they will find theirs very busy lives. The success of the school seems certain.

The Missouri State Sanatorium for Tuberculosis.—The newly appointed Board of Managers of the Missouri Tuberculosis Sanatorium at Mt. Vernon, Mo, met at the institution on May 16th and organized by electing Dr. J. L. Eaton, of Bismarck, president, Dr. Wm. Porter, of St. Louis, vice-president, and W. L. Gupton, of Montgomery City, secretary. Dr. W. M. Bayliss, of Columbia, was elected superintendent, and H. H. Hoehenschild, of Rolla, architect. The sanatorium will be formally opened for the reception of patients on July 1. It is built to accommodate twenty-five patients, but will be enlarged. Pending enlargement the state has an expensive plant on its hands; it would have saved money without sacrifice of effect had the care of these patients been hired in a private institution.

The Martha Parsons Free Hospital for Children, School street and Channing avenue, is preparing to open a pathological laboratory, under the charge of Dr. Walter Baumgarten. The hospital, which has from 40 to 50 children in its care, has just installed a new dispensary, and pneumonia, typhoid and isolation wards.

The New Internes at the City Hospitals.—Names of thirty-two young physicians who made highest grades in the examination conducted by the Board of Health were announced Friday by Commissioner H. Wheeler Bond. They will be assigned to the City and Emergency Hospitals as internes. Those appointed were: H. C. Kloeppen, G. C. Lyttle, F. D. Woodson, A. M. Freels, Bruce F. Lemmons, Percy Newman, S. F. Bassett, George B. Crow, W. M. Jones, L. G. Bartels, Theodore Freedman, L. C. Mudd, G. T. Dana. I. B. McKinney, M. G. Fronske, L. E. Monroe, James G. Story, L. G. Sales, J. B. McCubbin, C. E. Morris, L. O. Nicoll, G. W. Kirmse, W. H. Cook, William O'Rielly, W. L. Sudway, E. E. Toberts, Raymond L. Spring, T. A. Moran, Charles Tillmanns, Walter H. Pollman, J. G. Hubbard, Jr., C. H. Jamison.

Paste for Mounting Botanical Specimens.—The following is used by the collectors for the Smithsonian Institution, and for other large institutions in this country and Europe:

Tragacanth in powder....	30 parts
Gum arabic in powder....	20 parts
Glycerin.....	30 parts
Water.....	60 parts
Bichloride of mercury....	1 part
Boiling water.....	240 parts

Mix the gums with the glycerin and water in a mortar with vigorous stirring. Dissolve the bichloride in the boiling water and add the solution to the mixture. When cold a few drops of oil of cloves or wintergreen may be added.

REPORTS ON PROGRESS

Comprising the Regular Contributions of the Fortnightly Department Staff.

OTOLOGY.

ALBERT F. KOETTER, M. D.

A Case of Middle Ear Suppuration with Several Severe Chills.—(R. B. Mahon, British Med. Jour.)—Old, at present dry perforation, swelling and pain over mastoid process, high temperature of pyemic character, delirium, frequent vomiting. Swelling of the knee and shoulder, also swelling above the jugular, rigidity of the neck. Operation on the twelfth day after the first chill; large amount of pus in antrum. Further operation is abandned on account of poor general condition of patient. Seventh day after operation mild chill, thereafter uneventful recovery.

Two Cases of Retropharyngeal Abscess of Otitic Origin.—(E. M. Holmes, Boston, Annals of Otology.)—Case I.—Girl of fourteen with chronic middle ear suppuration for ten years. Acute attack of pain in left ear, and left half of face, swelling of the neck, dysphagia, difficult breathing. Temperature 103 deg. F. In left ear fetid pus and granulations. Posterior pharyngeal wall swollen and of bluish red color. Incision evacuates three ounces of pus. A probe could be passed through abscess cavity in pharynx to the middle ear. Later a cervical abscess developed communicating directly with pharyngeal abscess. External incision; recovery. Case II.—Woman of 26, with chronic ear suppuration since childhood. Swelling in the throat, incision evacuating large amount of pus. A probe introduced in the ear could be felt with the finger in the pharyngeal abscess cavity, removal of bone sequestrium; recovery.

Bezold's Pseudo-Otitis.—(Botella, Boletin de Laryngologia, Madrid).—Patient of 35 acquired a right sided otitis following an attack of angina; large amount of pus with severe continuous pain and swelling over and under the mastoid process, chills, fever. Operation.—Opening into the antrum, resection of the tip, exposure of the healthy sinus. Bandage.—For closure of wound opening paraffin 45 deg. Uninterrupted recovery.

A Case of Torticallis Following Mastoid Operation.—P. D. Kerrson, New York, Archives of Otology.)—The wry neck was noticed three to four days after operation, and became so marked that the change of dressing was difficult. During narcosis head was freely movable. Two months later head was fixed in normal position by stiff bandage. As cause of the wry neck author thinks it due to extension of suppuration to the superior spinal cervical nerve. Similar cases were observed by author in middle ear suppuration without mastoid involvement. Nearly all these patients opened their mouths with difficulty, they refused to lie on their back, as this position caused great discomfort. Perhaps the position caused pressure of the first vertebra on the processus odontoides.

Chorea in Middle Ear Suppuration.—(E. B. Derich, New York, Annals of Otology, etc.)—During the operation choreic movements were so strong that the narcosis could only be continued with difficulty. The dura of the middle cranial fossa was exposed and found normal. The chorea disappeared immediately after the operation.

As to the Involvement of the Ear After Concussions of the Head.—Rhese, Paderborn (Zeitschrift fuer Ohrenheilkunde), made a point of discovering if and what manner cases of head trauma, especially in those where the ability to hear the voice was not or only slightly involved for some time after the concussion symptoms are present that point to trauma; he examined 100 cases, and only those in which he could exclude changes due to age, occupation and previous ear trouble. Disturbances of equilibrium were present one year after trauma, only in form of slight static disturbance in closing the eyes, never alone, but always in conjunction with other symptoms pointing to internal ear involvement; nystagmus in 85%. Subjective noises were seldom mentioned. The test of hearing for the whispered voice, when trauma was a year old or more, hearing distance 20 to 25 meters in 49% of the cases, whereas, in fresh cases only one-third showed this hearing distance. There is therefore no doubt of improvement in the hearing, but this remains stationary after the first year. In contrast to the whispered voice the watch showed a marked diminution, an inconguity that could be demonstrated years after the injury. Tiring of the auditory was regularly demonstrated, excessive exhaustion was found in 8%. Very characteristic was the change in the duration of the perception of the tuning fork by air conduction. Immediately after the injury a curve whose lowest mark lay in the lower tone scale, which rose then to c3 to drop again to c4 or c5. A marked descent was regularly demonstrated in the reach of the middle tones in c2. If some time had elapsed since the trauma, a relatively good hearing for the lower and upper register was found, whereas, the ranges in the middle tone register, the turn of the curve was below. Besides this immediately after the injury the curve of

both ears was markedly similar, those of one side corresponded with those of the other. This condition changed with the time in such a manner that the curve of the ear on the uninjured side was higher than the injured side, which indicates that the former recovers more rapidly than the latter. The bone conduction remains severely impaired for a long time. Hyperemic conditions in the depth of the external canal and on the membrane were demonstrated immediately after the injury, in 65% of the cases even years after the injury. Especially characteristic was the phenomena, that the filling of the vessels after bodily exercise (stooping) only increased on the injured side. Very often vasomotor disturbance were demonstrated never immediately after the injury, but after some little time had elapsed.

Diseases of the Ear and Psychic Disturbances.—E. Amberg, Detroit (Journal of Nervous and Mental Diseases), arrives at the following conclusions: 1. The ear participates in the origin of psychic disturbance directly and indirectly. 2. As an organ of sense its functional disease can disturb the normal function of thought. 3. The psychic disturbance may occur in two ways: first, by causing symptoms of hallucination or illusions. 4. Very different from these disturbances are those in which the ear is the origin of the toxemia or an abscess which saps the vitality of the body. 5. Both conditions (3 and 4), although clinically and pathologically different may cause psychic disturbance and increase pre-existing psychic alterations. 6. It is probable that psychic distubrance may appear without predisposition, even disturbing subjective noises bring about a condition of exhaustion or neurasthenia. 7. These conditions are forensic and in rendering expert testimony are very important. 8. The question is difficult when consent for operation is necessary in adult who is subject to temporary spells of psychic disturbance and not in a position to judge of his condition, then the consent of relatives is necessary. 9. The organ of hearing of inmates of the asylums should be regularly examined. 10. The beneficial results of surgical interference of the ears, should be given the insane if they are necessary.

Nose, Pharynx, Larynx and Ear Disturbances in Diseases of the Circulatory Apparatus.—Sendziak, Warschau, (Monatschrift fuer Ohrenheilkunde) discusses: 1. The nose respectively nasopharyngeal involvement in the course of disease of the circulation and mentions as the most important symptom nose bleed. Epistaxis accompanies the different valvular diseases of the heart during the period of disturbance of compensation, whereas, it is much rarer in diseases of heart muscles. Nasal hemorrhages occur frequently in arteriosclerosis, namely, in young individuals and on syphilitic basis. A further sequel of hyperemia of the nasal mucous membrane, which often occur in the course of diseases of the circulation are the obstruction catarrhs, which cause obstruction of the nose. Inversely, diseases of the nose and nasal cavities may cause disturbance on the part of the heart and the vessels, the so-called nasogenic reflex, respectively heart neuroses. 2. The disturbances in the oral cavity and in the pharynx in the course of diseases of the heart and vessels are very much rarer, and are of less importance than the above mentioned nasal disturbances. As far as the hemorrhages are concerned, they have their origin most frequently in the engorged veins at the base of the tongue. Of the subjective, comparatively rare, symptoms, the author mentions a feeling of fulness, as well as a dryness of the fauces may be conditional on an existing swelling of the turbinates, causing the patient to breathe through the mouth. 3. Disturbances on the part of the ear in the course of diseases of the circulation which are here mainly of interest are very rare. These occur, according to Sendziak in all kinds of entotic noises, viz., such noises as are caused in diseases of the heart and larger vessels. Sendziak differentiates between two vascular murmurs of this kind, arterial and venous; the former are synchronous with the heart's action, the latter more of an aspirating character and constant. Furthermore, there occur on the membrane and in the tympanic cavity more or less pronounced ecchymoses, and finally there have been observed in the external canal furuncles in disturbance of the circulation.

GENITO-URINARY.

T. A. HOPKINS, M. D.

Simple Ulcer of the Bladder.—G. Walker, Baltimore (Jour. A. M. A., March 23), gives a report of two personal observations of this comparatively infrequent condition, which he defines as a single non-inflammatory ulcer of the mucous membrane of the bladder, occasionally penetrating the entire wall, and due probably to local disturbance in, or complete blocking of the terminal or by an interference with the trophic nerves, and never produced by infection of the bladder, though in its second and third stages it becomes infected with the ordinary pyogenic organisms. Two

types are recognized; the simple chronic form leading to cystitis, and the acute perforating ulcer. The early symptoms of the chronic type are those of irritation; increased frequency of micturition, scalding, pain, etc., and later, cystitis with aggravation of all the symptoms, finally, bladder paresis and the patient, unless relieved by operation, succumbs to exhaustion or ascending infection. In case of the acute perforating ulcer there are no symptoms whatever until perforation occurs. In the earlier stages the cystoscope affords the only means of diagnosis, and shows a simple ulcer with cleancut and slightly indurated edges surrounded by normal mucosa. It is distinguished from tuberculous ulcer by its clean, not undermined edges the appearance of its base, the absence of surrounding tubercle and of tuberculosis elsewhere. Only in this early stage can it be distinguished from the ulceration of the various forms of cystitis, and Walker believes that many cases of diagnosed healed tuberculous cystitis were primarily this disease. The prognosis of simple ulcer in the early stage is good if proper treatment is given. In the second stage, when lime salts have been deposited and the ulcerations are exaggerated, curetting and drainage will generally effect a cure. In the third stage when there is great interstitial change, the prognosis is grave, and the acute perforating ulcer is usually fatal, practically always so when the peritoneum is involved. One very early recognized cases is reported by Harrison, in which the patient was cured by operation. Silver nitrate irrigations, from 1 to 10,000 up to 1 to 5,000, every second day will usually cure in the first stage. In the second stage, curetting and cauterization with prolonged suprapubic drainage are generally necessary. In the third stage, drainage, irrigation and gradual bladder distention are all that can be done.

Pus Tubes in the Male.—Wm. T. Belfield (Med. Rec., May 4, 1907) says that pus infection in the seminal tube of the male is quite as frequent as in the fallopian tube in the female. It is frequently not recognized, since pyuria, frequent and painful micturition, and retention of urine are symptoms common to it and other urinary conditions. Infections result from the gonococcus, pyogenic bacteria, and the tubercle bacillus. When the seminal vesicle is invaded the complex of symptoms causes a diagnosis of prostatic abscess in most cases, while they are rather due to abscess in the seminal vesicles. Stricture of the bulbous urethra gives a picture that is usually mistaken for gonorrhea, although it is purely the result of pyogenic bacteria. In men over forty years old pus in the urine is ascribed to prostatic hypertrophy. The author advises simple incision with a cautery knife from the rectum to relieve pus tubes. A simpler operation, and one that can be done in the office, is that of opening the vas deferens, stitching the cut edges to the skin, and injecting through a curved hypodermic needle any choosen solution. The liquid traverses the vas and ampulla and enters the seminal vesicle. Daily injections are made until the infection is over when the fistula can be closed.

Gonorrheal Prostatitis.—J. Bayard Clark New York (Jour. A. M. A., April 13), doubts whether a posterior gonorrheal urethritis ever occurs without more or less involvement of the prostatic ducts. He describes briefly the several forms of acute prostatitis, the catarrhal, the follicular and the more serious parenchymatous type, and remarks that in acute prostatitis there is little danger of infection as the active and painful nature of the infection renders the patient practically incapable of sexual intercourse. Chronic prostatitis, which is the frequent outcome of even the milder forms of the acute disorder, and is often itself devoid of any subjective symptoms, is probably a fertile sources of the infection of women. Its characteristic symptoms when they occur and are not masked by a persisting urethritis are disturbances of urination, abnormalities of the sexual function, abnormal sensations, referred pains, neurasthenia, pains across the back, down the thighs or in the testicles, pain before or after defecation, headache and mental depression. Prostatorrhea, in the author's opinion, is rare. An exact diagnosis can not be made without digital examination and for this one should know the conditions of the gland at the different periods of life. It is usually enlarged but may be atrophied, irregular in shape, or nodulated. The general enlargement, the parenchymatous type, is apt to give an edematous feeling on palpation. In some cases no change can be detected on digital exploration and the diagnosis depends on the study of the prostatic fluid. The changes are usually in the consistency and color; it is thicker, often flaky, and greenish or yellowish from the addition of pus; degenerated epithelial cells and fat globus are present and the non-appearance of gonococci is not proof of their absence. After six months or a year gonococci are generally hard to find, but we can not say that these patients are then always non-infectious. Other organisms undoubtedly play a considerable part in the bacteriology of prostatitis. In the treatment of the chronically

diseased prostate, digital massage by the rectum is the most important element of the treatment. Clark gives detailed directions how this should be done and cautions against it while there is any evidence of active inflammation of the organ. Electricity and hot or cold applications may also be of use in some cases. The patient's general condition also needs attention. Favorable progress is estimated partly by the changes felt by the rectum, but more by the study of the prostatic discharges microscopically. Subjective symptoms are unreliable.

A New Method of Operation for Epispadias.—Carl Beck (Med. Rec., March 30, 1907) describes a new operation for epispadias designed to produce a urethral canal that shall be lined with mucous membrane. A case is cited as an example. There was a short penis, with glans, but without any canal, a broad furrow lined with mucous membrane being continued to a funnel-shaped orifice in the bladder. He dissected the surrounding walls, including the whole urethral gutter, as a hernial sac is dissected and mobilized in operation for hernia. A continuous incision was made around the funnel and urethral gutter, and a coherent canal shelled out and brought forward to form the new urethra. The glans was perforated with a bistoury and the canal drawn through the opening and mucous membrane sutured to the tip of the glans. Now, six months later, the boy retains urine for four hours, can pass water at command, and throws a stream six inches in length.

QUEER POSITIONS OF HEARTS.—There is one curious fact which not everybody notices about the common, finger-long, green caterpillars of our larger moths. Their hearts, instead of being in front, are at the back of the body and extend along the entire length of the animal. One can see the heart distinctly through the thin skin and can watch its slow beat, which starts at the tail and moves forward to the head. Hearts of this sort reaching from head to tail are not at all uncommon in the simpler creatures. The earthworm has one, and so have most worms, caterpillars and other crawling things. Hearts in the middle of the back also are quite as frequent as those in what seems to us to be the natural place. Many animals, the lobster for example, and the crayfish and the crab, which have short hearts like those of the beasts and birds, nevertheless have them placed just under the shell in what, in ourselves, would be the small of the back.—"Nature and Science" in June St. Nicholas.

THE MEDICAL FORTNIGHTLY

A Cosmopolitan Biweekly for the General Practitioner

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LITERALLY THE TRUTH.—Two or three generations ago Dr. Samuel Reed was one of the prominent physicians of Boston. His large practice included many patients outside of the city limits, and these he visited in his buggy.

One day he bought a new horse, with which he was much pleased until he discovered that the animal had an insurmountable objection to bridges of all kinds and could not be made to cross one.

As, at this period, it was necessary to cross some bridges in order to reach any one of the surrounding towns, the doctor decided to sell the horse. He did not think it necessary to mention the animal's peculiarity, but was much too honest to misrepresent him, and, after some thought, produced the following advertisement which he inserted in a local paper:

"For Sale.—A bay horse, warranted sound and kind. The only reason for selling is because the owner is obliged to leave Boston."
—June Lippincott's.